S/020/63/149/001/009/023
B102/B186

AUTHOR: Muradyan, R. M.

TITLE: Investigation of the analytical properties of ladder graphs by the method of complex orbital momenta

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 1, 1963, 80 - 83

TEXT: A ladder graph consisting of n/2 vertical, 2(n/2-1) horizontal and 4 end branches (Fig. 1) is investigated; the crosses indicate the substitution of the total distribution function by the δ-function. It is shown that such a graph has a spectral representation with respect to $t=(p_1+p_3)^2$ with the spectral functions $\varrho^{(n)}(s,t)$; $s=(p_1+p_2)^2$. First the case of equal particle masses (m) is considered; the graph is expanded with respect to Legendre polynomials

$$A^{(n)}(s,t)=8\pi\frac{\sqrt{s}}{|q|}\sum_l(2l+1)\,\gamma^{n/2}Q_l^{n/2}(z_1)\,P_l(z). \qquad (3)$$

and, according to Heitler,

$$A(s,t)=8\pi\frac{\sqrt{s}}{q}\sum_l(2l+1)\,\frac{\gamma Q_l(z_1)}{1-l\gamma Q_l(z_1)}\,P_l(z). \qquad (4)$$

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Investigation of the analytical...

$$q=\frac{1}{2}\sqrt{s-4m^2};\quad z=1+\frac{2t}{s-4m^2};\quad z_1=1+\frac{2m^2}{s-4m^2};\qquad \gamma=\frac{g^2}{8\pi}\frac{1}{\sqrt{s}\sqrt{s-4m^2}};\tag{1a}$$

$P_l(z)$ and $Q_l(z)$ are Legendre functions of the first and second kind. In the case of a graph whose inner lines are taken at the mass surface,

$$A^{(n)}(s,t)=\frac{8\pi\sqrt{s}}{q_H q_1\cdots q_{n/2-1}q_K}\left(\frac{g^2}{16\pi\sqrt{s}}\right)^{n/2}\sum_{l}(2l+1)\prod_{j=1}^{n/2}Q_l(z_j)P_l(z);\tag{5}$$

$$\rho^{(n)}(s,t)=\frac{8\pi\sqrt{s}}{q_H q_1\ldots q_{n/2-1}q_K}\left(\frac{g^2}{16\pi\sqrt{s}}\right)^{n/2}\frac{1}{2t}\int_{-1/\varepsilon+i\infty}^{-1/\varepsilon-i\infty}(2l+1)\,dl\prod_{l=1}^{n/2}Q_l(z_l)\,P_l(z).\tag{8}$$

From this the spectral representation of Fig. 1 with respect to the momentum transferred is

$$A^{(n)}(s,t)=\frac{1}{\pi}\int\frac{\rho^{(n)}(s,t')}{t'-t}\,dt'\tag{9}$$

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Investigation of the analytical...

the real spectral function is non-vanishing in the domain

$$z > \operatorname{ch}(\varphi_1 + \varphi_2 + \ldots + \varphi_{n/2}), \quad \varphi_i = \operatorname{ar\,ch} z_i. \qquad (8a)$$

In the special case of n = 6,

$$A^{(6)}(s, z) = \frac{1}{\pi}\int_{z_0}^{\infty} \frac{d\zeta}{\zeta - z}\rho^{(6)}(s, \zeta), \qquad (11)$$

$$\rho^{(6)}(s, z) = \frac{8\pi\sqrt{s}}{q_n q_1 q_2 q_K}\left(\frac{g^2}{16\pi\sqrt{s}}\right)^3 \frac{2\pi\theta(z - z_0)}{\sqrt{\Delta^+(z_1 z_2 z_3 z)}} K\left(\sqrt{\frac{\Delta^-(z_1 z_2 z_3 z)}{\Delta^+(z_1 z_2 z_3 z)}}\right). \qquad (12)$$

results. Finally several relations are derived for $\prod_i Q_1(z_i)$; for three Legendre functions summed over l from 0 to ∞ the spectral representation

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$$\sum_l (2l+1)\, Q_l(z_1)\, Q_l(z_2)\, Q_l(z_3)\, P_l(z) = \int_{z_0}^{\infty} \frac{d\eta}{\eta - z} \frac{2}{\sqrt{\Delta^+(z_1 z_2 z_3 \eta)}} K\left(\sqrt{\frac{\Delta^-(z_1 z_2 z_3 \eta)}{\Delta^+(z_1 z_2 z_3 \eta)}}\right), \quad (21)$$

$$K(k) = \int_0^1 \frac{dx}{\sqrt{(1-x^2)(1-k^2x^2)}}$$

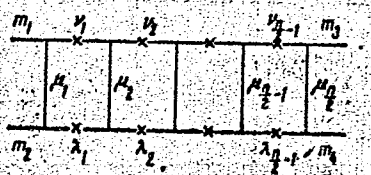
is obtained. There is 1 figure.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: September 17, 1962, by N. N. Bogolyubov, Academician

SUBMITTED: September 10, 1962

Fig. 1



L 11822-65 EWT(1) IJP(c)/ASD(a)-5/ESD(t) S/0020/64/158/006/1302/1305
ACCESSION NR: AP4048034

AUTHORS: Vashakidze, I. Sh.; Muradyan, R. M.; Tavkhelidze, A. N.; Chilashvili, G. A.; Shelest, V. P.

TITLE: Investigation of the analytic properties of the scattering amplitude in the nonrelativistic three-body problem

SOURCE: AN SSSR. Doklady*, v. 158, no. 6, 1964, 1302-1305

TOPIC TAGS: analytic function, meromorphic function, Regge pole, scattering amplitude, angular momentum

ABSTRACT: The authors indicate that earlier attempts to determine the singularities, especially moving branch points, of the scattering amplitude in the complex angular momentum plane are still inconclusive, and investigate the analyticity of the scattering amplitude for the three-body problem in which a free particle is scattered by the bound state of the two other particles. It is shown that formal

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continuation of the kernels of the appropriate integral equations leads to incorrect results, for reasons which are spelled out. It is shown, however, that if the matrix element that determines the probability of scattering by the bound state is expanded in a perturbation theory series, each term of the expansion, taken in the impulse approximation, can be set in correspondence with a Feynman diagram, from which it can be deduced that the scattering amplitude is meromorphic in the complex angular momentum plane. The result is of interest in the sense that each term of the perturbation theory series may have a cut, whereas the series as a whole is a meromorphic function. A detailed exposition of the result is contained in Preprint R-1662 of the Joint Institute of Nuclear Research. "In conclusion, we thank N. N. Bogolyubov and A. A. Logunov for discussions, and also B. A. Arbuzov, A. V. Yefremov, I. T. Todorov, and O. A. Khrustalev for fruitful discussions." This report was presented by N. N. Bogolyubov. Orig. art. has: 21 formulas.

L 14822-65
ACCESSION NR: AP4048034

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 18Apr64 ENCL: 00

SUB CODE: MA, NP NR REF SOV: 003 OTHER: 004

Card 3/3

MATEVOSYAN, P.A.; MURADYAN, S.G.

Investigating the operating precision of a condenser memory device used in continuous mathematical machines. Trudy Inst. mash., STP no. 19:67-72 '65 (MIRA 19:1)

L 07122-67 EWT(d)/EWP(1) IJP(c) BB/GG/JXT(CZ)

ACC NR: AT6017083 SOURCE CODE: UR/2916/65/000/019/0067/0072

AUTHOR: Matevosyan, P. A.; Muradyan, S. G.

43

ORG: none

16C B+1

TITLE: Investigating the accuracy of capacitor-type storage used in analog computers

SOURCE: AN SSSR. Institut mashinovedeniya. Trudy. Seminar po tochnosti v mashinostroyenii i priborostroyenii, no. 19, 1965, 67-72

TOPIC TAGS: analog computer, computer storage, computer storage device

ABSTRACT: The results are reported of an experimental investigation of the accuracy of operation of the capacitors connected to the feedback loop of a d-c amplifier which is simultaneously used as an integration unit. Ten 1-μF (±0.5%) capacitors connected individually by relays were used for information storage; it was noticed that their stored voltages suffered, after switching, up to 10—13% loss. As a result of studying the causes of leaks, an improved circuit (see figure) with

Card 1/2

MESROPYAN, Ye.I., dotsent; MURADYAN, S.M., vrach

Case of spontaneous healing of a large perforated corneal defect. Oft. zhur. 16 no.3:188-190 '61. (MIRA 14:5)

1. Iz kliniki glaznykh bolezney (ispolnyayushchiy obyazannosti zaveduyushchego - dotsent Ye.I.Mesropyan) Yerevanskogo meditsinskogo instituta.

(CORNEA--WOUNDS AND INJURIES)

MURADYAN, S.S.

Methods of aging invar wire by means of high-frequency currents. Geod.i kart. no.4:40-44 Je '56. (MLRA 9:10)
(Invar)

BABAYAN, G.G.; MURADYAN, S.S.; OGANESYAN, E.B.

Physicochemical properties of sodium and potassoim silicate solutions. Part 2: Vapor density of sodium silicate solutions. Izv.AN Arm.SSR.Khim.nauki 17 no. 3:290-295 '64. (MIRA 17:7)

1. Institut khimii Gosudarstvennogo komiteta tsvetnykh i chernykh metallov SSSR.

MURADYAN, V.A.; VARSHAVSKAYA, A., red.; NASIROV, N., tekhn. red.

[Beacon lights at the foot of the Karabakh Mountains; from the practices in diversified dry farming]Svetit maiak u podnozhiia Karabakhskikh gor; iz opyta vedeniia mnogootraslevogo khoziaistva v bogarnykh usloviiakh. Baku, Azerneshr, 1962. 29 p. (MIRA 16:1)

(Karabakh Range region—Dry farming)

Muradyan, V.M.

SHARDANOV, A. N.; GRIGOR'YANTS, B.V.; MURADYAN, V.M.

New data on breaks and unconformities within the Paleogene in southeastern Caucasus. Izv.AN Azerb.SSR. no.9:27-37 S '55. (Caucasus--Geology) (MLRA 9:1)

GRIGOR'YANTS, B.V.; MURADYAN, V.M.

Oil-bearing prospects of Cretaceous sediments in the northwestern part of Kobystan. Azerb. neft. khoz. 37 no.5:6-8 My '58.
(Kobystan--Petroleum geology) (MIRA 11:8)

1. YERZINKYAN, L. A. - MURADYAN, Ye. 4.

2. USSR (600)

4. Bacteria

7. Cultural and biological characteristics of acidophilic bacter (In Armenian with Russian summary). Mikrobbiol.sbor. no. 6, 1951

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

YERZINKYAN, L.A.; MURADYAN, Ye.A.

Using hydrochloric acid solution of iodine chloride in determining the amount of phenol in milk and milk products. Izv. AN Arm.SSR. Biol. i sel'khoz.nauki 11 no.8:13-16 Ag '58. (MIRA 11:10)

1. Sektor mikrobiologii AN ArmSSR.
(PHENOLS) (MILK--ANALYSIS AND EXAMINATION) (IODINE CHLORIDES)

YERZINKYAN, L.A.; MURADYAN, Ye.A.

Vitamin B_{12} content of Swiss cheese. Izv. AN Arm. SSR. Biol. nauki 13 no.12:13-18 D '60. (MIRA 13:12)

1. Sektor mikrobiologii Akademii nauk ArmSSR.
(CHEESE) (CYANOCOBALAMINE)

YERZINKYAN, L.A.; MURADYAN, Ye.A.; PAKHLEVANYAN, M.Sh.

Antibiotic properties of matzoon during maturation and prolonged storage. Vop.mikrobiol. no.1:187-204 '61. (MIRA 17:10)

YERZINKYAN, L A.; PAKHLEVANYAN, M.Sh.; MURADYAN, Ye.A.

Intensity of carbohydrate fermentation by lactic acid bacteria and Streptococcus faecalis. Vop. mikrobiol. no.2:219-226 '64. (MIRA 18:3)

Country : RUMANIA
Category: Cultivated Plants. Grains.

Abs Jour: RZhBiol., No 22, 1958, No 100268

Author : Sandulescu, N.; Murafa, Nineta
Inst : State Agric. Station
Title : Cultivation of Corn at the Minastirea State Farm.

Orig Pub: Rev. gospod. agric. stat. 1958, No 2, 5-7.

Abstract: No abstract.

Card : 1/1

KAMENSKIY, Ye.V., inzh.; MURAGIN, F.P., inzh.

The fishing trawler "Leskov." Sudostroenie 27 no.2:1-5 F '61.
(MIRA 16:7)
(Trawls and trawling) (Shipbuilding)

MURAGIN, S.P., kand. tekhn. nauk

Effect of length and displacement on the towing resistance of geometrically similar ships. Sudostroenie 25 no.4:11-13 Ap '59. (MIRA 12:6)

(Displacement (Ships)) (Towing) (Ship resistance)

KORENEVR,

SHCHERBAKOV, A.P.; MURAGINA, T.A.

Breathing rate of the crustacea Apus cancriformis Schäff. Zool.zhur. 32 no. 5:844-847 S-O '53. (MLRA 6:10)

1. Biologicheskaya stantsiya na Glubokom ozere Instituta morfologii zhivotnykh Akademii nauk SSSR. (Crustacea)

MURAGINA-KORENEVA, T.A.

Ecology and systematics of the Pelopiinae of Ucha Reservoir. Report no.1: Procladius and Psilotanypus (Diptera, Tendipedidae) [with key to the larvae and pupae in English]. Ent.obos. 36 no.2:436-450 '57. (MIRA 10:7)

1. Laboratoriya fauny presnykh vod Kafedry zoologii besposvonochnykh Moskovskogo Gosudarstvennogo Universiteta, Moskva.
(Ucha Reservoir--Chironomidae)

MURAI, Gaborne (Hatvan)

It does not function. Magy vasut 7 no.5:3 4 Mr '63.

MURAI, Geborme (Hatvan)

Outstanding worker, outstanding steward. Magy vasut 7 no.9:2 1 My '63.

MURAI, Margit, dr.; VARGHA, Geza, dr.

Spirometric and ECG examinations in severe spondylitis deformans in children. Gyermekgyogyaszat 7 no.7:220-223 July 56.

1. Szabadsaghegyi Allami Gyermekszanatorium (Igaz.: Flesch, Istvan, dr.) Extrapulmonalis osztalyanak (foorvos: Pozsonyi, Jozsef, dr.) es a Budapesti Orvostud. Egyetem Tudogyogyaszati Klinik. (Igaz.: Kovats, Ferenc, dr. egyetemi tanar)kozl.

(SPONDYLITIS, in inf. & child
deformans, spirometry & ECG in severe cases in child. (Hun))
(RESPIRATION, funct. tests
spirometry in severe spondylitis deformans in child. (Hun))
(ELECTROCARDIOGRAPHY, in various dis.
spondylitis deformans, in severe cases in child. (Hun))

MUHAI, Maria

"Technical Weeks" in Paris. Ujit lap 14 no.16:19 25 Ag '62.

VIL'KEVICH, Boris Iosifovich, kand. tekhn. nauk; MURAKAYEVA, A., red

[Electrical network of the TE-3 diesel locomotive] Elektricheskaia skhema teplovoza TE-3. Tashkent, Gos.izd-vo UzSSR, 1961. 63 p. (MIRA 18:3)

ROGOV, Petr Andreyevich, dots.; MURAKAYEVA, A., red.

[Novikov's transmissions; principles of tooth contact and the design of transmissions with Novikov's engagement] Peredachi Novikova; printsipy kontakta zub'ev i raschet peredach s zatsepleniem Novikova. Tashkent, Gosizdat Uzbekskoi SSR, 1962. 45 p. (MIRA 17:3)

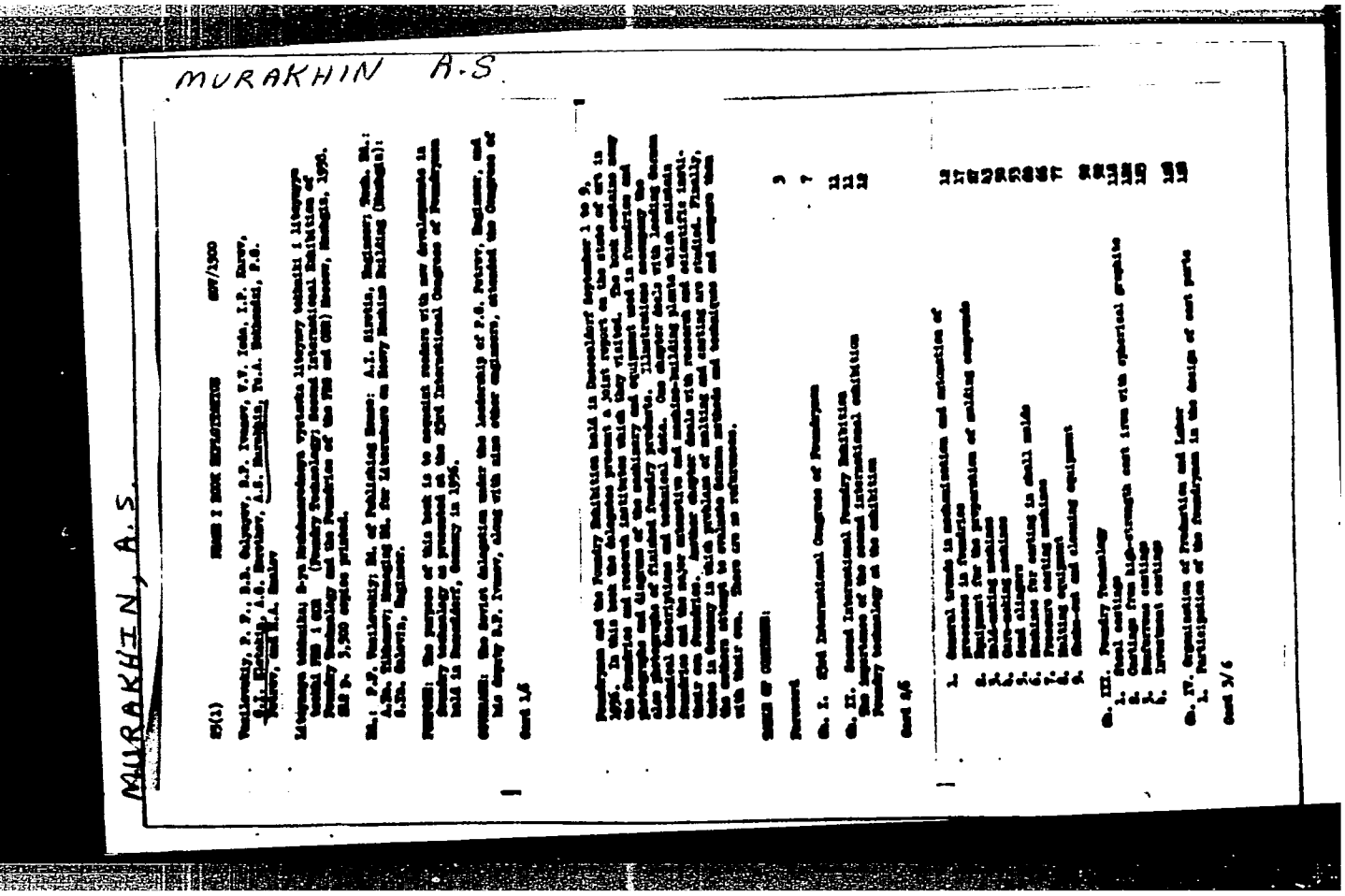
ALESKEROV, Yuriy Nikolayevich; MURAKAYEVA, A., red.

[Samarkand; tourist guide] Samarkand; sputnik turista. Tashkent, Uzbekistan, 1965. 35 p. (MIRA 18:7)

YELYUTIN, V.P.; MURAKH, M.A.; PEN'KOV, I.A.

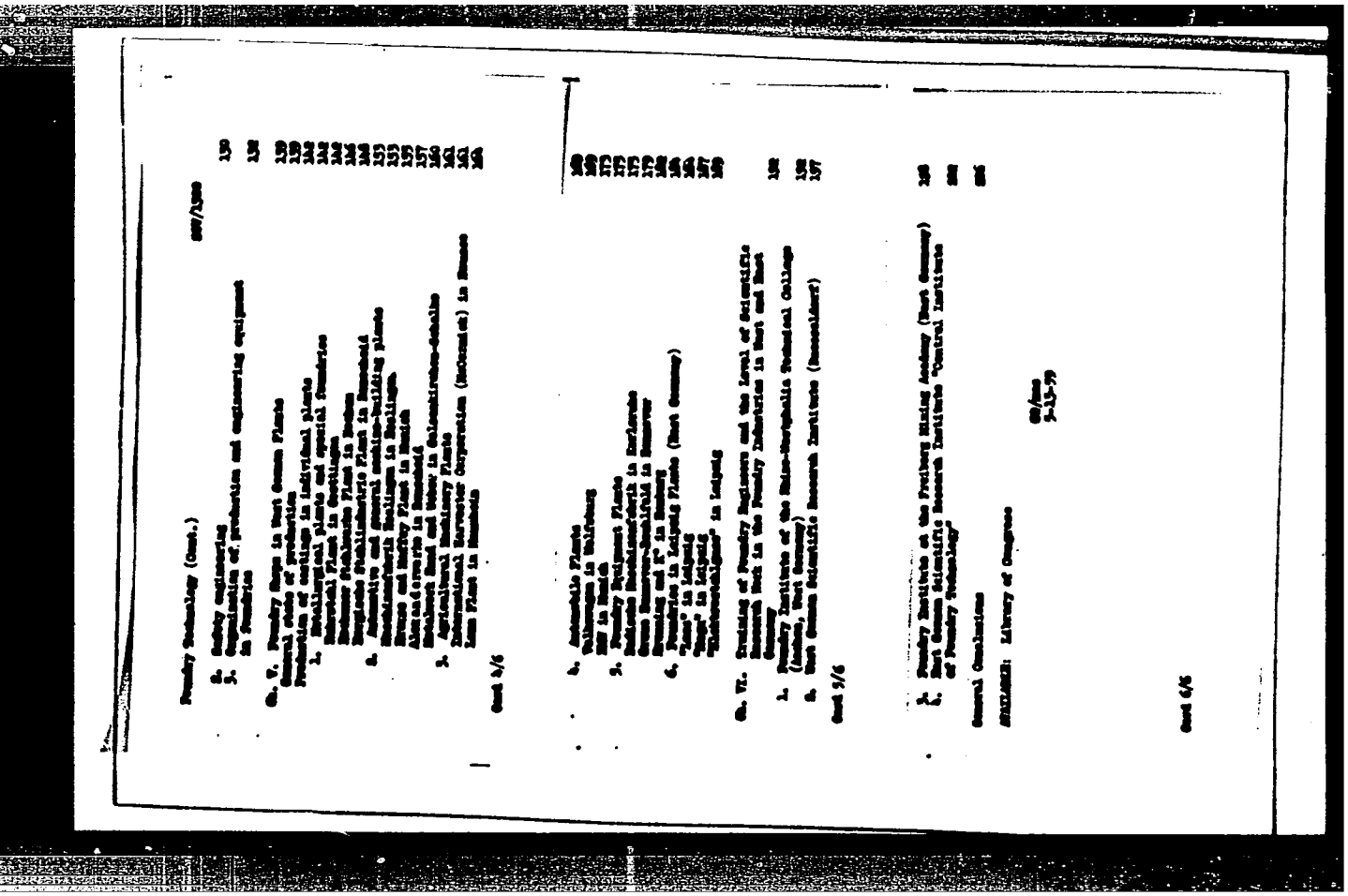
Viscosity of liquid zirconium. Izv. vys. ucheb. zav.; chern. met. 8 no.7:128-132 '65. (MIRA 18:7)

1. Moskovskiy institut stali i splavov.



MURAKHIN A.S.

MURAKHIN, A.S.



MURAKHIN, N. (gorod Stavropol'); BABICHEV, D. (gorod Stavropol').

Fulfill your pledges. Kinomekhanik no.5:10-11 My '53. (MLRA 6:6)
(Moving-picture projection)

MURAKHIN Yu. A.

25(1) PHASE I BOOK EXPLOITATION SOV/1500

Vasilevskiy, P. F., B.B. Gulyayev, D.P. Ivanov, V.V. Ioda, I.P. Karev, G.I. Kletskin, A.G. Merotkov, A.S. Murakhin, Yu.A. Nekhendzi, P.G. Petrov, and M.A. Smelov

Liteynaya tekhnika; 2-ya Mezhdunarodnaya vystavka liteynoy tekhniki i liteynyye tsekhi FRG i GDR (Foundry Technology; Second International Exhibition of Foundry Technology and the Foundries of the FRG and GDR) Moscow, Mashgiz, 1958. 212 p. 3,500 copies printed.

Ed.: P.F. Vasilevskiy; Ed. of Publishing House: A.I. Sirotin, Engineer; Tech. Ed.: A.Ya. Tikhonov; Managing Ed. for Literature on Heavy Machine Building (Mashgiz): S.Ya. Golovin, Engineer.

PURPOSE: The purpose of this book is to acquaint readers with new developments in foundry technology as presented at the 23rd International Congress of Foundrymen held in Dusseldorf, Germany in 1956.

COVERAGE: The Soviet delegation under the leadership of P.G. Petrov, Engineer, and his deputy D.P. Ivanov, along with nine other engineers, attended the Congress of

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Foundrymen and the Foundry Exhibition held in Dusseldorf September 1 to 9, 1956. In this book the delegates present a joint report on the state of art in the foundries and research institutes which they visited. The book contains many photographs and diagrams of the machinery and equipment used in foundries and also photographs of finished foundry products. Illustrations accompany the technical descriptions and technical data. One chapter deals with leading German foundries and the major automotive and machine-building plants which maintain their own foundries. Another chapter deals with research and scientific institutes in Germany in which problems of melting and casting are studied. Finally, the authors attempt to evaluate German methods and techniques and compare them with their own. There are no references.

TABLE OF CONTENTS:

DOKUNIKHIN, N.S.; YEGOROVA, L.M.; MURAKHOVSKAYA, M.A.

2-Aminoanthraquinone. Patent U.S.S.R. 77,400, Dec. 31, 1949.
(CA 47 no.19:10007 '53)

MURAKHOVSKAYA, M.A., inzh.

Calculation of the stray inductance of electric transformers. Vest. elektroprom. 33 no.10:28-31 O '62. (MIRA 15:9)
(Electric transformers)

MURAKHOVSKAYA, M.A., kand.tekhn.nauk

Dispersion inductance of windings on different transformers cores.
Elektrotekhnika 36 no.3:52-53 Mr '65. (MIRA 18:6)

15-57-10-14397

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, p 169 (USSR)

AUTHOR: Murakhovskaya, Ye. I.

TITLE: Petrography of the Mesozoic Coals of Kazakhstan (K petrograficheskoy kharakteristike mezozoyskikh ugley Kazakhstana)

PERIODICAL: Sb. nauch. tr. Kazakhsk. gorno-metallurg. in-ta, 1956, Nr 14, pp 69-76

ABSTRACT: The coals studied include Lower Jurassic (Chok-Pak, Taskomyrsay, Maykyuben', and others), Middle Jurassic (Martuk, Ak-Su, Aktyubinsk, and others), and Lower Cretaceous (Cape Izendy and Matveyevka). The parent material of the coals is chiefly derived from the higher plants, and to a much lesser degree from algae. Plant tissue is common in the original material of the Upper Triassic and Lower Jurassic coals; cutin components are abundant in the Middle Jurassic and Lower Cretaceous

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Petrography of the Mesozoic Coals (Cont.)

coal material. In rank, the coals are grouped as brown coals and bituminous dry coals. They are divided into the genetic groups--limosites, prominulites, exertites, and eluviites. The limosite group includes coals composed predominantly of gelled lignin-cellulose plant tissue, of anaerobic origin to a great extent, and containing cutin-forming components which range from zero up to five percent. The prominulite group has cutin-forming components and plant tissue in equal proportion, altered by the formation of gel and fusain. The exertite group is characterized by the predominance of fusinised plant remains, by only small quantities of cutin-forming components, and by a homogeneous transparent quality in the main mass of the coal. The eluviite group represents coals containing cutin-forming elements, little plant tissue, and the principal coal mass. In addition to the groups of humic coals described above, the deposits also contain small quantities of sapropelic and himic-sapropelic coals. The coal beds of Rhaetian-Liassic and Liassic age are of polyfacies type; the majority of Middle and Lower (sic) Jurassic coals are of monofacies type. The coal-forming

Petrography of the Mesozoic Coals (Cont.) 15-57-10-14397

plants throughout the entire Mesozoic were rather uniform--conifers, ginkgos, cycads, and ferns. Of these, however, conifers were more abundant in the Triassic and Lower Jurassic, ferns in the Middle and Lower (sic) Jurassic.

Card 3/3

L. I. Bogolyubova

MUBAKHOVSKAYA, Ye.I.; TAZHIBAYEVA, P.T.

Stratigraphy of Paleozoic deposits in Dzhezkazgan on the basis of a spore-pollen analysis. Vest.AN Kazakh.SSR 12 no.4:79-82 Ap '56. (MLRA 9:8)

1. Predstavlena akademikom AN SSSR K.I. Satpayevym.
(Dzhezkazgan--Paleontology, Stratigraphic)

MURAKHOVSKAYA, Ye.I.

Age and stratigraphic correlation of the coal-bearing formation in the Maykyubenskiy Basin. Izv.AN Kazakh.SSR. Ser.geol. no.24: 59-73 '56. (MLRA 10:2)

(Maykyubenskiy Basin--Paleontology, Stratigraphic)

MURAKHOVSKAYA, Ye.I.

Petrographic characteristics of the basic genetic types of Maikiubensk Basin. Izv. AN Kazakh SSR. Ser. geol. no.2:8-27 '57. (MLRA 10:8)

(Kazakhstan--Coal geology)

MURAKHOVSKAYA, Ye.I.

Petrographic characteristics of coals in the Alakol' deposit. Trudy Inst. geol. nauk AN Kazakh. SSR. no.3:118-138 '60. (MIRA 14:1)

(Alakol' Lake region--Coal)

SERGEYAKOV, N.S.; MURAKHOVSKAYA, Ye.I.; KHALTURIN, A.I., kand.khim.nauk

New coal deposit in the Rudnyy Altai. Vest. AN Kazakh. SSR 17 no. 2:77-82 F '61. (MIRA 14:2)
(Belokamenka (Altai Territory)—Coal)

AKHMETOV, I.K.; MURAKHOVSKAYA, Ye.I.

Character of carbonaceous matter in rocks containing ores in the Dzhilandinskaya group deposits and its role in the localization of mineralization. Izv. AN Kazakh.SSR.Ser.geol.nauk 21 no.6:64-74 N-D '64. (MIRA 18:3)

1. Institut geologicheskikh nauk im. K.I.Satpayeva AN KazSSR, Alma-Ata.

MURAKHOVSKIY, B.A., mashinist-instruktor; NIKITIN, G.N.

Preparation of the M60 electric locomotive for service. Elek. i tepl. tiaga 4 no. 12:23-26 D '60. (MIRA 14:1)

1. Depo Krasnoyarsk (for Murakhovskiy). 2. Zamestitel' nachal'nika depo Krasnoyarsk (for Nikitin).
(Electric locomotives--Maintenance and repair)

MURAKHOVSKIY, B.A., mashinist-instruktor; NIKITIN, G.N.

Operation of rectifying units. Elek. i tepl. tiaga no.1:38-41 Ja '61. (MIRA 14:3)

1. Zamestitel' nachal'nika depo Krasnoyarsk (for Nikitin).
(Electric locomotives) (Electric current rectifiers)

MURAVIOVSKIY, B.A., mashinist-instruktor; [illegible], V.A., mashinist-elektrovoza; MAKSIMOV, A.A., inzh.

Engineers on the a.c. powered N60 electric locomotives should know this. Elek. i tepl. tiaga 5 no.5:39-40 My '61. (MIRA 14:7)

(Electric locomotives)
(Electric railroads--Employees)

MURAKHOVSKIY, B.A., mashinist-instruktor; REZNICHENKO, V.A., mashinist elektrovoza; MAKSIMOV, A.A., inzh.

Engineers of the a.c. powered N60 electric locomotives should know this. Elek. i tepl. tiaga 5 no.6:36-37 Je '61. (MIRA 14:10)
(Electric locomotives) (Locomotive engineers)

MURAKHOVSKIY, B.A., mashinist-instruktor (g.Krasnoyarsk); REZNICHENKO, V.A., mashinist elektrovoza (g.Krasnoyarsk); MAKSIMOV, A.A., inzh. (g.Krasnoyarsk)

What the operator of a N60 a.c.electric locomotive should know. Elekt.i tepl. tiaga 5 no.10:32-34 O '61. (MIRA 14:10)

1. Chleny initsiativnoy gruppy vneshtatnykh korrespondentov zhurnala "Elektricheskaya i teplovoznaya tyaga".
(Electric locomotives)

BLYUMIN, M.A.; MURAKHTANOV, B.V.

Using fluctuations in the water level in topographic surveying of a fluvial plain. Geod.i kart. no.10:41-46 O '62. (MIRA 15:12)

(Topographical surveying)

MURAKHTANOV, YE. S.

MURAKHTANOV, YE. S.: "The organization of the economy in kolkhoz forests of Leningrad Oblast." Min H gher Education USSR. Leningrad Order of Lenin Forestry Engineering Academy imeni S. M. Kirov. Leningrad, 1956.
(Dissertation for the degree of Candidate in Agricultural Sciences)

SO: Knizhnaya Letopis', N° 36, 1956, Moscow.

Country : USSR
Category: Forestry. Forest Management. I.

Abs Jour: RZhBiol., No 11, 1958, No 48755

Author : Murakhtanov, Ye.S.
Inst : Leningrad Forest Technology Acad.
Title : Collective Farm (Kolkhoznyy) Forests of USSR and the State of their Economy.

Orig Pub: Tr. Leningr Lesotekhn. akad., 1957, vyp. 82, ch. 1, 151-159

Abstract: No abstract

Card : 1/1

VAYSBURD, M.S.; KOFMAN, V.B.; MURAKHVER, N.P.; STEPANOV, A.I.

About a book on the design and calculation of refrigerating machines and apparatus. Khol. tekh. 38 no. 1:61-62 Ja-F '61.
(MIRA 14:4)
(Refrigeration and refrigerating machinery)

S/054/61/000/001/001/008
B117/B203

24.4500

AUTHOR: Murakhver, Yu. Ye.

TITLE: Charge exchange in atomic collisions. Calculation of charge exchange by the parameter method

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, no. 1, 1961, 5-18

TEXT: The author studied the charge exchange by Demkov's parameter method, and defined the relationship between molecular and atomic approximations in electron capture problems. The following formula was derived for the probability of the process in the BK approximation (Ref. 2: H. C. Brinkman and H. A. Kramers. Kon. Akad. Wet. Proc. Sec. sci. 33, 973, 1930):

$$W_{n_A n_B} = W_{n_B n_A} = \left| \int_{-\infty}^{\infty} dt \int \Psi^{*}_{n_B} V_{A,B} \Psi_{n_A} \, dr \right|^2 \qquad (7).$$

This formula also holds for multiple charge exchange. The disadvantage of (7) is its noninvariance with respect to the Hamiltonian transformation

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(11): $H_e \longrightarrow H_e' = H_e + u(t)$ ($u(t)$ being an arbitrary time function). This disadvantage produces an unimportant phase factor $\exp\left[-i\int u(t)dt\right]$ at Ψ. It was found in Ref. 7 (the reference to the English-language publication reads as follows: D. R. Bates. Proc. Roy. soc., A, 247, 294, 1958) that the disturbance (in atomic approximation) had the form (12):

$$V_B' = V_B - \langle\Psi_{n_A}|V_B|\Psi_{n_A}\rangle \quad (12).$$

This formulas is invariant with respect to the transformation (11). In the case of large v, the second term of this formula is unimportant. When studying the resonance charge exchange during the flight of protons through atomic hydrogen, the probability of this process was taken from Ref. 2, assuming $Z_A = Z_B = 1$. This gives:

$$W_{BK}(v, \rho) = \left[4\rho^4/v^2(1 + \frac{v^2}{4})^2\right]K_2^2(\rho\sqrt{1 + \frac{v^2}{4}}) \quad (22).$$

Conformable to the calculation methods, the velocities were divided into ranges: (I) $v^2 < 0.04$; (II) $0.04 < v^2 < 3.2$; (III) $v^2 > 3.2$. For $\sigma(v)$ of

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range (I), the author found the analytical formula (25):

$$\sigma(v) = \frac{\pi}{2}\left(\alpha + \frac{3}{2}\ln\alpha\right)\left(\alpha + \frac{3}{2}\ln\alpha + \frac{9}{2}\frac{\ln\alpha}{\alpha} + \frac{4}{\alpha}\right) + \\ + 3\pi\left(1 + \frac{3}{2}\frac{\ln\alpha}{\alpha}\exp\left[-\frac{9}{4}\frac{\ln\alpha}{\alpha} - \frac{2}{\alpha}\right]\right). \quad (25)$$

For range (II), it had the form (26): $\sigma(v) = (\pi/2)(4 - 1.45\cdot\log v^{-})^{-}$. The resonance process $He^{++} + H(1s) \longrightarrow He^{+}(2s) + H^{+}$ was treated in Ref. 1 (Yu. N. Demkov, Uch. zap. LGU. no. 8, 74, 1952) for $v^2 \ll 1$. The author obtained correct results also for large v, and calculated the resonance charge exchange: $He^{++} + H(1s) \longrightarrow He^{+}(2p) + H^{+}$. The following formula

$$w_{BK}^{(2p)} = \frac{9}{2}\rho^{6}\left(1 + \frac{v^2}{4}\right)^{-3} K_3^2\left(\rho\sqrt{1 + \frac{v^2}{4}}\right) + \\ + \frac{16}{9}\rho^{6}v^{-2}\left(1 + \frac{v^2}{4}\right)^{-2} K_2^2\left(\rho\sqrt{1 + \frac{v^2}{4}}\right). \quad (36)$$

was found to be correct. For $v^2 > 2$, $\sigma_{2p} = 228/\left(1 + \frac{v^2}{4}\right)^7 + 298/v^2\left(1 + \frac{v^2}{4}\right)^6$. The author assumes that the entire charge-exchange cross section of

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Charge exchange in atomic...

resonance and non-resonance charge exchange is well defined by formula (38): $\sigma = \sigma_{1s} + \sigma_{2s} + \sigma_{2p}$. Fig. 3 shows the charge-exchange cross section of α-particles in atomic hydrogen. The author showed that the problem of the wave function of the ground state can be solved in n-electron approximation. For the probability of a single charge exchange for any atoms, the author derived formula (46):

$$w_{BK}(v, \rho, \gamma) = \frac{4\gamma^6\rho^4}{v^2\left(1+\frac{v^2}{4\gamma^2}\right)^2} K^2\left(\gamma\rho\sqrt{1+\frac{v^2}{4\gamma^2}}\right) = w_{BK}(\gamma^{-1}v, \gamma\rho, 1), \quad (46)$$

where $W_{BK}(v, \rho, 1)$ are given by formula (22). $\sigma(v, \gamma) = (1/\gamma^2)\sigma(\gamma^{-1}v, 1)$ results from the probability of process (46). When considering multiple charge exchange in slow collisions, the author wrote down the interpolation formula (50) which was similar to formula (26), in n-electron approximation for a twofold charge exchange:

$$\sigma^{(2)}(v, \gamma) = \frac{\pi}{2\gamma^2}\left[4{,}6 - 0{,}95\cdot\lg\left(\frac{2v}{Z}\right)^2\right]^2. \quad (50)$$

The corresponding formula for a threefold charge exchange had the form of

Charge exchange in atomic...

(51):

$$\sigma^{(1)}(v,\gamma)=\frac{\pi}{2\gamma^2}\left[5-0{,}6\cdot\lg\left(\frac{3v}{Z}\right)^2\right]^2. \qquad (51)$$

A comparison of the established data with theoretical and experimental data from publications showed that the formulas given for single and multiple charge exchanges were badly applicable to rare gases. The author thanks Yu. N. Demkov for conducting the work. I. P. Flaks, Ye. S. Solov'yev, Ya. M. Fogel', L. I. Krupnik, B. G. Safronov, B. M. Palyukh, L. A. Sena, and L. G. Filippenko are mentioned. There are 6 figures and 31 references: 10 Soviet-bloc and 21 non-Soviet-bloc.

Card 5/6

MURAKHVER, Yu.Ye.

Resonant charge exchange in hydrogen and sodium. Zhur. eksp. i teor. fiz. 40 no.4:1080-1084 Ap '61. (MIRA 14:7)

1. Leningradskiy fiziko-tekhnicheskiy institut AN SSSR.
(Protons--Scattering) (Nuclear reactions)

37871
S/056/62/042/005/015/050
B104/B102

24.6600

AUTHOR: Murakhver, Yu. Ye.

TITLE: Resonance charge exchange in atomic hydrogen

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 5, 1962, 1241-1243

TEXT: The resonance charge exchange cross section of protons in atomic hydrogen ($H^+ + H \longrightarrow H + H^+$) with energies of incident protons of $E > 0.01$ ev is calculated with the aid of integral expressions for the probabilities previously derived by the author (ZhETF, 40, 1080, 1961). For 0.01 ev $< E <$ 2.5 kev and $E > 1$ Mev, the resonance charge exchange cross sections are approximated by $\sigma(E) = 7.7(\log E - 7.9)^2$ and $\sigma = 1.2\sigma_1$, $\sigma_1 = \sigma_1^{(BK)} = 11.25E^{-1}(1 + 10E)^{-5}$, respectively. No simple formulas can be given for high and medium velocities. The superscript BK refers to Bassel-Gerjuoy (Phys. Rev. 117, 749, 1960). There are 2 figures.

Card 1/2

Resonance charge exchange in ...

S/056/62/042/005/015/050
B104/B102

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk SSSR (Leningrad Physicotechnical Institute of the Academy of Sciences USSR)

SUBMITTED: August 8, 1961

Card 2/2

MURAKHVER, Yu.Ya.

Study of the relation between the approximations suitable for the calculation of slow and fast collisons of atomic systems. Vest. LGU 19 no.22:50-55 '64. (MIRA 18:1)

L 11401-66 EWT(1)

ACCESSION NR: AP5021128 UR/0056/65/049/002/0635/0641

44,55 44,55 45 B

AUTHOR: Demkov, Yu. N.; Marakhver, Yu. Ye.

TITLE: Calculation of the angular distribution of resonance charge exchange 21,44,55

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 2, 1965, 635-641

TOPIC TAGS: helium, charge exchange, quantum resonance

ABSTRACT: The angular distribution of the resonance charge exchange of He^+ ions in helium is calculated in a quasiclassical approximation which eliminates some earlier difficulties in the reconciliation of the experimental results and theoretical classical approximations of the adiabatic theory developed for resonance charge exchange within the framework of the parametric method by one of the authors (Demkov, Uch. zap. LGU, fizika, v. 8, 74, 1952) and by others. Although the theory predicts an oscillating behavior for the resonance charge exchange probability as a function of the scattering angle, the experimentally observed maxima and minima of this probability never reach 0 and 1, respectively. In the present paper these difficulties, which are essentially connected with the ambiguity of the impact parameter and arise in all collision-theory problems, are circumvented because resonant charge exchange does not involve electronic transitions between the molecular states. Ac-

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ACCESSION NR: AP5021128

3

count is taken in the calculations of the relative motion of the nuclei for both symmetrical and antisymmetrical states. The conditions for the validity of the derived formulas for the angular distribution are analyzed, and the results are compared with experiment and with the less accurate calculations of E. Everhart (Phys. Rev. v. 132, 2083, 1963). It is shown in the conclusion that the results can be made more precise by taking into account the rotation of the quasimolecule, the transitions connected with the crossing of an infinite number of terms of like symmetry, and autoionization. The errors due to each of these factors are briefly discussed. Orig. art. has: 3 figures and 27 formulas. [02]

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: 06Mar65 ENCL: 00 SUB CODE: NP, ME

NO REF SOV: 004 OTHER: 014 ATD PRESS: 4099

Card 2/2 DP

MURAKHVER, Yu.Ye.

Spreading of quantum and classical probability packets. Dokl. AN SSSR 165 no.3:526-529 N '65. (MIRA 18:11)

1. Submitted April 3, 1965.

MURAKHVERI, I.A., inzh.

Improve the technological checking procedures in the installation of high-pressure pipelines. Energetik 8 no.9: 2-3 S '60. (MIRA 14:9)

(Steampipes)

S/135/61/000/002/012/012
A006/A001

AUTHOR: [redacted] I. A., Engineer

TITLE: Conference on Welding in Construction Industry

PERIODICAL: Svarochnoye proizvodstvo, 1961, No. 2, pp. 44-45

TEXT: A Conference on welding in the building industry was convened from October 20 to 22, 1960, in Dnepropetrovsk. The Conference was organized by the UkrSSR Ministry of Construction, the Dnepropetrovsk Sovnarkhoz and the Institute of Electric Welding imeni Ye. O. Paton, AS UkrSSR. More than 400 representatives from the industry, ministries, sovnarkhozes, and various scientific institutions attended the Conference. A number of 25 reports were delivered. An introductory report was made by V. A. Terent'yev, Minister of Construction of UkrSSR. Then the following papers were read: Academician B. Ye. Paton, Institute of Electric Welding imeni Ye. O. Paton, on the state and outlooks of developing welding techniques in the USSR; I. A. Kabanov, engineer, "Ukrglavstal'konstruktsiya", on experiences made in the use of welding for the manufacture of metal structures; A. N. Blinov, engineer, Trust No. 7 of the RSFSR Ministry of Construction, on new technology in special steel pipeline welding for highly active media; A. M. Povo-

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lotskiy, engineer, Leningrad Department of GPI "Tyazhpromelektroproyekt" on replacing bolt connections of contacts by resistance welded joints; V. V. Shevernitskiy, Candidate of Technical Sciences, Institute of Electric Welding imeni Ye. O. Paton, on "Problems of the Strength of Welded Structures and Basic Principles of their Planning"; V. G. Naumov, "Glavtekhmontazh" of the RSFSR Ministry of Construction, on "Automatic Welding in Argon of Alloyed Steel Pipelines"; I. A. Sokol, engineer, "Soyuzprommontazh" of the RSFSR Ministry of Construction on "Argon-Arc Welding of Stainless Steel Pipelines Using Nitrogen-Hydrogen Forming Mixture"; I. L. Teytel'baum, engineer, "Promtekhmontazh" Trust of the RSFSR Ministry of Construction, on "Automatic and Semi-Automatic Welding in Argon Atmosphere of Aluminum Containers"; V. N. Kagan, engineer, "Ogrproyektmontazh" Trust of the RSFSR Ministry of Construction, on "Experiences in the Welding of Cementation Furnaces"; A. G. Perlin, engineer, "Metallurgmontazh" Trust of the UkrSSR Ministry of Construction, on "The Use of Automatic Welding in the Assembly of Rotary Cementation Furnaces"; Ye. S. Lifant'yev, engineer, "Metallurgmontazh" Trust of the UkrSSR Ministry of Construction, on "Welding Steels with Propane-Butane Flame". The participants of the Conference approved a suggestion made by engineer P. I. Gurskiy on the extended introduction of cold welding of aluminum conductors using КС-6 (KS-6) tongs on the building site and using СНС-2 (SNS-2) and СНС-3 (SNS-3) machines in assembly shops. A series of criticisms and recommendations were presented.

Card 2/2

ACC NR: AP7007056 SOURCE CODE: UR/0091/66/000/011/0015/0017

MURAKhVERI, M. A. (Engineer)

ORG: none

"Experience of Using a Network Planning and Control System in Repairing Large Power Units"

Moscow, Energetik, No 11, 1966, pp 15-17

TOPIC TAGS: electric power plant, computer / Ural-r computer

Abstract: Capital repair of large capacity power units is a very complex operation, which cannot be fully represented on a line graph. Therefore, the author's enterprise has begun using a system of network planning and control for capital repair of large and middle-sized power units such as those at the 200 Mw Luganskaya State Regional Power Station. The network plans are composed on the basis of investigations showing the average labor consumption of each operation in the repair. The network model thus constructed was tested on a "Ural-r" computer, to determine the critical paths, calendar dates of events, time reserves, number of workers required on each repair date, etc. The first plans developed by the computer called for from 8 to 130 men to be present on various days. These plans were then improved to even out the number of workers required on each repair day. In repairing a 200 Mw power unit, 5 network plans are used, for the following operations:

Card 1/2 UDC: 621.18+621.165+621.313.1/.3.004.67

ACC NR: AP7007056

repair of the steam generating unit; repair of supplementary mechanisms and tubing; repair of the turbine, generator, oil system, etc.; repair of boiler equipment, feed lines, steam conductors, etc.; and control and measurement instrument repair. The over all network plan for repair of a power unit encompasses 2000 events. Combination of all five network plans resulted in a single overall plan with determination of the critical path for each model; calendar dates and time reserves for each event; quantitative and qualitative composition of teams required for performing each work operation in the time alloted, grouped in chronological order by responsible individuals; and graphs of the required number of repair personnel for each working day over the entire work period, divided into individual specialities. The author points out that effective usage of network planning and control methods require a great deal of reeducation of repair personnel involved, and reorganization of the entire repair enterprise. Orig. art. has: 1 figure and 2 tables. [JPRS:39,577]

SUB CODE: 10, 09

Card 2/2

MURAKOSI, Erno, okl.kozgazda

Economical margins of production in coal mining. Bany lap 94 no.9:615-618 S '61.

1. Nehezipari Miniszterium, Iparpolitikai Foosztaly.

MURAKOZY, E.

Prime cost not depending on the quantity of production in coal mining. p. 124.
(Banyaszati Lapok, Vol. 12, no. 2, February 195[illegible]. Hungary)
Budapest

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 9, Sept. 195[illegible]. Uncl.

MURAKOZY, T.

Textbook or handbook? p. 43. Vol. 6, No. 1 Jan. 1956. ACRATUDOMANY. Budapest, Hungary.

SOURCE: East European List, (EEAL) Library of Congress Vol. 6, No. 1 January 1956.

ZVEREV, L.V.; PETROVA, N.V.; MURAL', G.K.

Extraction of niobium by trictylamine from sulfuric acid solutions.
Min.syr'e no.9:25-31 '63. (MIRA 17:10)

ACC NR: AT7007279 (A) SOURCE CODE: UR/3249/66/000/013/0016/0026

AUTHORS: Petrova, N. V.; Mural', G. N.; Makarova, N. P.

ORG: none

TITLE: Chemical treatment of columbite and microlite concentrates

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya. Mineral'noye syr'ye, no. 13, 1966. Obogashcheniye i pererabotka mineral'nogo syr'ya (Concentration and processing of minerals), 16-26

TOPIC TAGS: metallurgy, tantalum compound, niobium compound, chemical separation

ABSTRACT: In recent years, tantalum has been extracted with increasing success from concentrates of niobium minerals in which the Ta_2O_5:Nb_2O_5 ratio may be as low as 1:20. The present paper describes a laboratory experiment to extract Ta_2O_5 and Nb_2O_5 separately from columbite concentrates containing 43--46% of the combined oxides at a Ta_2O_5:Nb_2O_5 ratio of 1:10 to 1:13. One part concentrate (by weight) is mixed with three parts caustic soda and fused (at 750C for 2 hrs). A dilute solution of NaOH is then used to wash the product, and Sn, Si, Ti, and W go into solution, leaving Nb, Ta, Fe, Mn. The Fe and Mn are dissolved by an acid solution of HCl and H_2SO_4, and the Nb and Ta pentoxides (98.5% pure) appear on roasting. By selective solution with H_2SO_4, the Ta_2O_5:Nb_2O_5 ratio may be increased from 1:13 to 2:1. Further purification

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ACC NR: AT7007279

may be effected by extraction with trioctylamine in kerosene, in a three-stage process. The final product contains 98.8% Ta_2O_5 and 0.203% Nb_2O_5. Orig. art. has: 9 figures and 8 tables.

SUB CODE: 11, 07/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 2/2

ACC NR: AT7007280 (N) SOURCE CODE: UR/3249/66/000/013/0027/0034

AUTHORS: Zverev, L. V.; Petrova, N. V.; Mural', G. N.; Makarova, N. P.

ORG: none

TITLE: The use of water-soluble amines in treating tantalum-niobium materials

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya. Mineral'noye syr'ye, no. 13, 1966. Obogashcheniye i pererabotka mineral'nogo syr'ya (Concentration and processing of minerals), 27-34

TOPIC TAGS: metallurgy, tantalum compound, niobium compound, amine

ABSTRACT: The authors have found that the use of oxalic acid or hydrogen peroxide in forming Ta and Nb complexes is unsatisfactory because of instability and other factors. The use of water-soluble amines is suggested. The present paper outlines the optimal conditions for leaching Nb and Ta from sulfate cake by using as complexing agents methylamine, monoethanolamine, and triethanolamine. Columbite concentrates were used in the test. The technique found to be most satisfactory is the following: one part (by weight) of the concentrate is added to 2.5--3 parts of H_2SO_4, and the mix is held for two hours at 350C. The material is then washed with water and treated with methylamine for 30 minutes at 40C. The Nb and Ta are now in solution and may be removed. Neutralization with a weak mineral acid precipitates Nb and Ta pentoxides

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ACC NR: AT7007280

(with a purity of 99%). After the precipitate is filtered off, the amine may be regenerated by addition of CaO, which combines with the sulfate radical to form $CaSO_4$. This may be removed, and the pure amine is ready for re-use in the process. Orig. art. has: 8 figures and 6 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 002

Card 2/2

MURAL', V.; GRUZIN, P.L.

Effect of alloying on the diffusion of phosphorus in austenite. Fiz. met. i metalloved. 17 no.5:792-795 My '64. (MIRA 17:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P. Bardina.

GRUZIN, P.L.; MURAL', V.V.

Studying the diffusion of phosphorus in iron and its alloys by radiometry. Probl. metalloved. i fiz. met. no.8:311-320 '64. (MIRA 18:7)

GAYDAYEV, Petr Alekseyevich; FOMIN, Mikhail Pavlovich; GUTER, R.S.; YEROFEYEV, I.P.; MILEVSKIY, Yu.G.; MURALEV, Ya.G; FOMIN, M.P.; SHURYGINA, A.I., red. izd-va; ROMANOVA, V.V., tekhn. red.

[Adjustment of second-order triangulation by approximations] Uravnivanie triangulatsii 2 klassa priblizheniiami. Moskva, Izd-vo geodez. lit-ry, 1960. 36 p. (MIRA 14:6)
(Triangulation)

S/154/60/000/02/08/018
B012/B123

AUTHORS: Gaydayev, P. A., Docent, Candidate of Technical Sciences, Muralev, Ya. G., Engineer (referred to in footnote as "graduate student")

TITLE: An Example to the Article: "Problems of Adjusting Continuous Extension Nets of Triangulations"

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1960, No. 2, pp. 73-88

TEXT: According to the note, the article mentioned in the title was published in No. 1, 1960 of the present periodical. All procedures and calculations are described, which are necessary for the adjustment of the net shown in Fig. 1. Numerical computations may be seen in Tables 1-10. There are 1 figure, 10 tables, and 7 Soviet references.

Card 1/1

MURALEV, Ya.G., inzh.

Integral formulas for a triangulated strip projected onto a non-equipotential surface approximating the reference ellipsoid. Izv. vys. ucheb. zav.; geod. i aerof. no.5:66-74 '64. (MIRA 18:5)

ACC NR: AP7013718 SOURCE CODE: UR/0154/66/000/001/0065/0078

AUTHOR: Muralev, Ya. G. (Candidate of technical sciences)

ORG: none

TITLE: Adjustment of the astronomical-Geodetic network using the M. S. Molodenskiy integral formulas

SOURCE: IVUZ. Geodeziya i aerofotos"yemka, no. 1, 1966, 65-78

TOPIC TAGS: triangulation, geodetic survey

SUB CODE: 08

ABSTRACT: Positions of points on the earth's surface in a geodetic coordinate system are determined by the three coordinates latitude B, longitude L and elevation H. This paper presents a method for determining B, L, H of stations in a network by the reduction of measurement results to the quasi-geoid (using the known normal heights and neglecting small plumb-line deflections relative to the normal to the quasi-geoid) and taking into account the expansion effect arising in this case by the use of the M. S. Molodenskiy integral formulas. The projection of the links onto the quasi-geoid presents no difficulties. This gives the lengths of the diagonals of the links and the angles between them and the initial sides of the links. After expansion of the net onto the

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ACC NR: AP7013718

reference ellipsoid successive determinations are made of the geodetic azimuths of the diagonals of the links, the geoistic coordinates, and using the geodetic and astronomical coordinates of Laplace stations -- the mixed plumb-line deflections at them. In order for the coordinates of the stations of the net to correspond to the projection of the stations themselves onto the reference ellipsoid along the normals to it, it is necessary to compute the increments of the coordinates for each side of the polygon -- the diagonals of the triangulation link, as the projections of its image on the quasi-geoid onto the meridian, parallel and normal of the reference ellipsoid passing through the initial station of the link. All the formulas are given for these procedures. The final geodetic coordinates are determined by the solution of condition equations for closed polygons and by computation of the expansion effect from the measurement errors determined from adjustment. Orig. art. has: 3 figures, 41 formulas and 2 tables. [JPRS: 40,496]

Card 2/2

MURALEVICH, M.V.

[Automatic weft spooling machines] Utochnoperemotochnye avtomaty. Moskva, Gizlegpishcheprom, 1953. 99 p. (MLRA 7:2)
(Textile machinery)

MURAMOVICH, Grigoriy Il'ich; VAYNTRAUB, D.A., red.

[Experience in introducing and using universal blocks, die sets, and accessory tools for the group die stamping of parts] Opyt vnedreniia i ekspluatatsii universal'nykh blokov, paketnykh shtampov i sredstv mekhanizatsii dlia gruppovoi shtampovki detalei. Leningrad, 1965. 24 p. (MIRA 18:5)

MURANOV, A.N.

Treatment of varicose veins of the lower extremities by the method of electrocoagulation. Vest.khir. no.5:72-74 '62. (MIRA 15:11)

1. Iz 2-y khirurgicheskoy kliniki usovershenstvovaniya vrachey Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.
(VARIX) (ELECTROSURGERY)

AGAPOVA, Nadezhda Platonovna, kand. tekhn. nauk; MOROZOVA, Nadezhda Dmitriyevna, kand.tekhn. nauk; LYTKINA, Sof'ya Grigor'yevna. Prinimala uchastiye MURALEVICH, M.V.; POTAPOVA, L.V., kand. tekhn. nauk; MONINA, P.V., kand. tekhn. nauk; DMITRIYEV, I.I., retsenzent; MEN'SHENINA, V.A., red.

[Equipment and technology of silk weaving manufacture] Oborudovanie i tekhnologiia shelkotkatskogo proizvodstva. Moskva, Legkaia industriia, 1964. 527 p. (MIRA 18:1)

MURAHOV, A.P.

Hydrological yearbooks of the Congo River Basin. Meteor.i gidrol. no.9:55-58 S '56. (MLRA 9:11)
(Congo River Basin--Hydrology)

MURANOV, Aleksandr Pavlovich; LEONOVA, B.I., redaktor; BRAYNINA, M.I., tekhnicheskiy redaktor

[The Hwang Ho River (Yellow River)] Reka Khuankho (Zheltaia reka). Leningrad, Gidrometeor.izd-vo, 1957. 86 p. (MLRA 10:6)
(Yellow River)

MURANOV, A.P.

AUTHOR: Muranov, A. P.

TITLE: Concerning the Hydrological Service in the United States of America (O gidrologicheskoy sluzhbe v Soyedinennykh Shtatakh Ameriki)

PERIODICAL: Meteorologiya i Gidrologiya, 1957, No. 2, pp. 56-59 (U.S.S.R.)

ABSTRACT: The author describes the development of organizations dealing with hydrological works, namely the U. S. Geological Survey, the U. S. Weather Bureau, Corps of Engineers, and others. The former is the most important and conducts studies in the USA, Alaska, and the Hawaiian Islands. At the beginning of 1954, the G. Survey was receiving data from 7,000 hydrological stations. Between 1888 and 1954, observations were conducted at 13,000 points within the agency's jurisdiction. 18 hydrological regions of the USA are listed. The article also indicates literature from which data can be obtained on water level and runoff since 1899; the annuals referred to are comprised mostly of data on river runoff. The data are tabular and are given in cubic feet per sec. Above the tables of mean diurnal runoff, there is listed for each station brief explanation of the station type, its location, equipment, area of basin, periods of observation etc.

Card 1/2

Concerning the Hydrological Service in the United States of America

By the beginning of 1953, the Weather Bureau was connecting observations of water levels at 671 points.

The hydrological yearbooks on runoff of rivers and water levels published in the USA are arranged in a regular format which is compact and convenient to use. They contain much factual material and constitute indispensable reference data in studying the water regime of this country.

There is one text figure, being a map showing the hydrological regioning of the USA territory applicable to the volumes of hydrological yearbooks. There are two U.S. references. No personalities are cited.

ASSOCIATION:

PRESENTED BY:

SUBMITTED:

AVAILABLE:

Card 2/2

MURANOV, A F

AUTHOR: Muranov, A. F., 50-12-13/19

TITLE: **Hydrology** in the Hungarian **People's** Republic (Gidrologiya v Vengerskoy Narodnoy Respublike)

PERIODICAL: Meteorologiya i Gidrologiya, 1957, Nr 12 pp. 47-50 (USSR)

ABSTRACT: More than 70 years ago, in 1886 a hydrological department of the Ministry for Municipal Building and Traffic with the rights of a special organisation was established, which had to do with hydrographical - and questions concerning the regulation of the water supply. The whole special working of this service during the time of from its organisation up to now may be divided into 4 characteristic periods.

I. The first period includes the time of from the establishment of the service up to 1902. The hydrographical department was commissioned with the following works: Investigation of the water catastrophes and the methods of combating them collection of hydrometrical data, which were necessary for the exploitation of the water sources with regard to practical purposes, revision and publication of the data of the hydrological observations, and others.

II. The second period includes the time of from 1903-1920, and is, incomparison to the first period, characterized by an essential stagnation in hydrological science.

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